AMENDMENTS TO THE CLAIMS:

1. (Currently Amended) A method for controlling data transfer between a host and a plurality of storage devices, comprising:

receiving first data for storage at a transport master, wherein said first data for storage is addressed to said transport master;

receiving said first data for storage at a transport slave, wherein said first data for storage is addressed to said transport master, and wherein said first data for storage is received at said transport master and said transport slave substantially simultaneously, plus or minus an arrival time difference due to a difference in length of a signal line traversed by said first data received at said transport master and the length of a signal line traversed by said first data received at said transport slave;

providing from said transport master said first data for storage to a first storage device interface;

providing from said transport slave said first data for storage to a second storage device interface, wherein said first data for storage is provided to said first device interface and to said second device interface substantially simultaneously, plus or minus an arrival time difference due to a difference in the length of a signal line traversed by said first data for storage provided to said first storage device interface and the length of a signal line traversed by said first data for storage provided to said second storage device interface, and plus or minus an arrival time difference due to a difference in a processing time of said first data for storage in said transport master and a processing time of said first data for storage in said transport slave;

storing said first data for storage on a first storage device;

storing said first data for storage on a second storage device;

receiving a request for one of said first data and second data at said transport master, wherein said request for data is addressed to said transport master;

receiving said request for one of said first data and second data at said transport slave, wherein said request for data is addressed to said transport master;

providing from said transport master said request for one of said first data and second data to said first storage device interface;

providing from said transport slave said request for one of said first data and second data to said second storage device interface; and

in a normal operating mode, retrieving said requested one of said first data and second data from said first storage device and from said second storage device, wherein in said normal operating mode a multiplexer is controlled to connect said first storage device interface to said transport master such that said requested one of said first data and second data from said first storage device is provided to said transport master for delivery to said host and said multiplexer is controlled to not connect said second storage device interface to said transport master such that said requested one of said first data and second data from said second storage device is not provided to said transport master for delivery to said host; and

in a failover operating mode, retrieving said requested one of said first and second data from at least said second storage device, wherein in said failover mode said multiplexer is controlled to connect said second storage device interface to said transport master such that said requested one of said first and second data from said second storage device is provided to said transport master and said multiplexer is controlled to not connect said first storage device interface to said transport master wherein any portion of said first and second data retrieved from said first storage device is not provided to said transport master.

2. (Canceled)

3. (Currently Amended) The method of Claim [[2]] 1, wherein in a failover mode said requested one of said first data and second data from said first storage device is not provided to said host and said requested one of said first data and second data from said second storage device is provided to said host.

4. (Previously Presented) The method of Claim 1, further comprising:

in said normal operating mode:

passing a write confirmation signal from said first storage device interface to said transport master; and

passing a write confirmation signal from said second storage device interface to said transport slave.

5. (Previously Presented) The method of Claim 1, further comprising:

in said failover operating mode:

passing a write confirmation signal from said first storage device interface to said transport master;

passing a write failure signal from said second storage device interface to said transport slave;

providing said write failure signal to said transport master; and

notifying said host of said write failure signal.

6. (Previously Presented) The method of Claim 1, wherein in a non-RAID operating mode said first data for storage and addressed to said transport master received at said transport slave is not stored on said second storage device.

7. (Previously Presented) The method of Claim 1, wherein said step of providing said first data comprises constructing a data packet and providing said data packet to said first device interface and to said second device interface.

8. (Original) The method of Claim 1, wherein said transport master and said transport slave are interconnected to a host system bus by a system bus interface.

9. (Original) The method of Claim 1, wherein said method implements a RAID level 1 storage scheme.

10. (Currently Amended) A method for storing and retrieving data in a RAID 1 system, comprising:

enabling RAID 1 operation;

receiving first data for storage from a first communications bus at a system bus interface, wherein said first data for storage is addressed to a transport master;

providing said first data for storage to said transport master;

providing said first data for storage to a transport slave ~~at substantially the same time said first data for storage is provided to said transport master~~;

storing said first data in a first storage device and a second storage device ~~substantially simultaneously~~;

receiving a request for said first data stored in both said first storage device and said second storage device;

in a normal mode

in response to said request, retrieving data from said first and second storage devices ~~substantially simultaneously~~, wherein said data retrieved from said first storage device is received by a multiplexer and is passed to said transport master by said multiplexer, ~~and~~ wherein said data retrieved from said second storage device is passed to said transport slave and to said multiplexer, and wherein said data retrieved from said second storage device that is received by said multiplexer is not passed to said transport master; and

validating said first data retrieved from said first and second storage devices to ensure data consistency between said first and second storage devices to ensure data consistency between said first and second storage devices; and in a failover mode:

in response to said request, attempting to retrieve data from said first storage device and retrieving data from said second storage device, wherein any data retrieved from said first storage device is received by said multiplexer and is not passed to said transport slave, and wherein data retrieved from said second storage device is passed to said transport slave and to said multiplexer, and wherein said data from said second storage device that is received by said multiplexer is passed to said transport master by said multiplexer .

11. (Original) The method of Claim 10, wherein said step of enabling RAID 1 operation comprises enabling said transport slave to act on at least one of commands and data addressed to said transport master.

12. (Original) The method of Claim 11, wherein a RAID 1 enable signal is provided to enable RAID 1 operation.

13. (Original) The method of Claim 12, wherein said RAID 1 enable signal is generated by at least one of a host processor and a local processor.

14. (Canceled)

15. (Previously Presented) The method of Claim 10, wherein a request for data addressed to said transport master is provided to said transport master at substantially the same time that said request for data is provided to said transport slave.

16. (Currently Amended) A RAID controller, comprising:

a system bus interface;

a transport master interconnected to said system bus interface;

a first device interface interconnected to said transport master;

a first storage device directly interconnected to said first device interface;

a transport slave interconnected to said system bus interface; and

a second device interface interconnected to said transport slave;

a second storage device directly interconnected to said second device interface, wherein at least one of a command and data addressed to said transport master and received at said system bus interface is passed to said transport master and is passed to said transport slave ~~substantially simultaneously~~;

a multiplexer comprising a first input interconnected to said first device interface, a second input interconnected to said second device interface, and an output interconnected to said transport master, wherein said multiplexer selectively interconnects only one of said first and second inputs to said output at any one time, wherein data read from only [[a]] said selected one of said first and second storage devices is provided to said transport master,

wherein in a first operating mode data read from said storage device is provided by said multiplexer to said transport master and data read from said second storage device is passed to said transport slave, and

wherein in a second operating mode data read from said second storage device is provided by said multiplexer to said transport master and data read from said second storage device is passed to said transport slave.

17. (Original) The RAID controller of Claim 16, wherein in a first mode of operation at least one of a command and data received at said transport master is provided to said first device interface and said at least one of a command and data received at said transport slave is provided to said second device interface.

18. (Original) The RAID controller of Claim 17, wherein in a second mode of operation data received at said transport master is provided to said first device interface, and wherein said data received at said transport slave is not provided to said second device interface.

19. (Canceled)

20. (Previously Presented) The RAID controller of Claim 16, wherein in a normal operating mode data read from said first storage device is provided to said multiplexer, wherein said data read from said first storage device is provided to said transport master, wherein data read from said second storage device is provided to said transport slave and to said multiplexer, and wherein

said data read from said second storage device is not passed by said multiplexer to said transport master.

21. (Previously Presented) The RAID controller of Claim 16, wherein in a failover mode data read from said first storage device is provided to said multiplexer, wherein said data read from said first storage device is not passed by said multiplexer to said transport master, wherein data read from said second storage device is provided to said transport slave and to said multiplexer, and wherein said data read from said second storage device is passed by said multiplexer to said transport master.